CC - Records Unit, Spfld.
- DLPC, FOS, Aurora

RECONNAISSANCE VISIT NOTES

TRIEM STEEL & PROCESSING, INC. - Pickle Liquor Discharge
(Chicago Heights)

DATE April 11, 1977

INTERVIEWED Steve Pecsenye, Vice-President

ACCOMPANIED BY Ken Bechely, Division of Land Pollution Control

An inspection of this facility was conducted in order to determine the source of liquid wastes being discharged from a pipe located north of the facility into a low area at the southwest corner of the Triem landfill. According to the Vice-president, Mr. Pecsenye, this facility can be characterized as a steel processor. This means they do not own the material at the site, rather they process steel in accordance with orders from their customers. This involves shearing of bars and flats, and pickling. There are two picklers: a batch pickler and a continuous coil pickler.

The batch pickler consists of three pickling tanks containing a 5% solution of sulfuric acid. These tanks are used in parallel. Associated with the pickling tanks is a water rince tank and a neutralizer tank.

The final tank is a oil spray tank. Here, parts are sprayed with a parifin based oil to prevent rusting. According to Pecsenye, this oil is not discharged from the plant, rather it is used over and over again.

He estimates that each of the other tanks are emptied once every four weeks. They attempt to discharge the acid tank along with the neutralizer tank contents in order to discharge a more neutral type of a liquid.

On the other side of the plant building, they have a continuous coil pickler. Here, coils are unwound and passed through a very long tank containing the acid, neutralizer, rinse and oil spray much like that of the batch pickler. These tanks are also periodically emptied into the common discharge drain. The oil that is sprayed on the coils is used over and over again, and finally replenished.

All storm water that falls on the plant building and the surrounding area is also discharged into this common drainage system. He admitted that the waste are discharged into the pit. However, he maintains that the underlying material is a clay material, therefore liquids would not enter the ground water. We indicated to him that this type of operation may be considered to be in violation, and may require a permit to operate.

A sample of the primary discharge to the ditch, which comes from the east was collected at 11:45 A.M. It was oily and reddish in color. While taking the first sample, it was noticed that another discharge is entering the ditch from the south. This flow was much less than that of the east discharge, however, it was oily in appearance.

Several photos were taken in and around the area. It should be noted in Photo #1 that the outlet tile has been buried, forcing the water to flow through the ground and rise to the surface. Photo #2 is a view of the north outlet and Photo #3 shows the appearance of the receiving ditch. Photos #4, 5 and 6 shows the location where the effluent water is pooling. The water here was a rusty reddish color. The banks of the pool show that at some prior date the water level was at a higher point due to the discolored stains along the sides. The surface of the water was covered with a dark reddish brown oil.

The samples were returned to the Chicago Laboratory for analyses. The results of the tests performed are attached.

Michael J. Schmitt

Michael J. Schmitt, Environmental Protection Engineer, Maywood

MJS:dk
CC - Records Unit
5/12/77 - 5/12/77

SPECIAL ANALYSIS FORM

C 3950 FEB1077

Time Collected: 12:10 P | Sub-Basin: CHGO[illegible]

Date Collected: 9FEB72 | Collector: [illegible]

Facility Name: TRIEM STEEL | ~~Facility Number~~: | File Town: [illegible]

Stream Name(s): | Stream Code:

Source of Sample: (exact Location)

DISCHARGE FROM OUTFALL NORTH OF TRIEM STEEL PLANT

Physical Observations, Remarks: PURPLE, REDDISH WITH HEAVY BROWN OIL. STRONG OIL ODOR.

Flow ~ 20 gpm	Field Dissolved Oxygen	Field pH	Field Temp.

	Arsenic		Coliform/100ml	360	BOD
	Barium		Fecal Coliform 100 ml		COD
	Boron		Fecal Strep 100 ml		TS/RC
	Cadmium		Algae (Total) /ml	5400	Susp. Solids
0.46	Copper		Ammonia (N)		Vol. Susp. Solids
	Chromium (tri)		Organic Nitrogen (N)	Too Oily	pH (units)
	Chromium (hex)		Nitrate + Nitrite(N)		Turbidity (JTU)
500.0	Iron (Total)		Phosphorus (P)		Hardness
	Iron (Dissolved)		Chloride		Alkalinity
	Lead		Fluoride		Total Acidity
3.40	Manganese		Sulfate		Free Acid
	Mercury (ppb)		Cyanide		Oil
	Nickel		MBAS		Other (Specify)
	Selenium		Phenol (ppb)		
	Silver				
0.15	Zinc				

Results in mg/l unless other wise noted.

Transported by: YMJ

Received by:

Transported by:

Received by:

FOR LAB USE ONLY

Lab Number: C003950 Rec'd by: [illegible]

Date sample rec'd: 2-9-72 Time: 1125

Date analysis completed: 2-17-72

Date results forwarded: 2-18-72

Total Tests requested: 7 Tests run: 0

Lab Section: Chicago Supervisor: [illegible]

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SPECIAL ANALYSIS FORM

C04979 APR11'77

Collected: 1145A

Sub-Basin: CH60N

Collected: 11APR77

Collector: M. Schmitt

Facility Number:

File Town: CH60 HTS

TRIEM STEEL

Stream Code: —

(Exact Location): DISCHARGE FROM EAST TO ditch

Observations, Remarks: OILY REDDISH COLOR

	Field Dissolved Oxygen	Field pH	Field Temp.

	Arsenic		Coliform/100ml	137	BOD
	Barium		Fecal Coliform 100 ml	55	COD
	Boron		Fecal Strep 100 ml	632	TS/EC
0.0	Cadmium		Algae (Total) /ml	180	Susp. Solids
0.03	Copper	0.62	Ammonia (N)		Vol. Susp. Solids
	Chromium (tri)		Organic Nitrogen (N)	6.1	pH (units)
	Chromium (hex)		Nitrate + Nitrite(N)		Turbidity (JTU)
15.0	Iron (Total)		Phosphorus (P)		Hardness
	Iron (Dissolved)	14	Chloride		Alkalinity
	Lead		Fluoride		Total Acidity
	Manganese		Sulfate		Free Acidity
	Mercury (ppb)	0.00	Cyanide		Oil
2.0	Nickel		MBAS		Other (Specify)
	Selenium		Phenol (ppb)		
	Silver				
0.1	Zinc				

Results in mg/l unless otherwise noted.

Transported by: MJS
Received by:
Transported by:
Received by:

FOR LAB USE ONLY
Lab Number: C004979 Rec'd by: R. Knowles
Date sample rec'd: 4-11-77 Time: 1:00 pm
Date analysis completed: 4-21-77
Date results forwarded: 4-22-77
Total Tests requested: 13 Tests run: 13
Lab Section: Chicago Supervisor: [illegible]

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY--DIVISION OF WATER POLLUTION CONTROL

SPECIAL ANALYSIS FORM

C04980 APR1177

Collected: 1145A　　Sub-Basin: CHGON

Collected: 11APR77　　Collector: M. Schmitt

City Name: [illegible] Steel　　Facility Number:　　File Town: CHGO HTS

Stream Name: —　　Stream Code: —

Place of Sample: (Exact Location)

Discharge from south to [illegible] ditch

Field Observations, Remarks: oily

	Field Dissolved Oxygen	Field pH	Field Temp.

	Arsenic		Coliform/100ml	30	BOD (circled)
	Barium		Fecal Coliform 100 ml	4	COD (circled)
	Boron		Fecal Strep 100 ml	538	TS/EC (circled)
	Cadmium		Algae (Total) /ml	7	Susp. Solids (circled)
	Copper	0.33	Ammonia (N) (circled)		Vol. Susp. Solids
	Chromium (tri)		Organic Nitrogen (N)	8.3	pH (units) (circled)
	Chromium (hex)		Nitrate + Nitrite(N)		Turbidity (JTU)
	Iron (Total)		Phosphorus (P)		Hardness
	Iron (Dissolved)	13	Chloride (circled)		Alkalinity
	Lead		Fluoride		Total Acidity
	Manganese		Sulfate		Free Acidity
	Mercury (ppb)	0.00	Cyanide (circled)		Oil
	Nickel		MBAS		Other (Specify)
	Selenium		Phenol (ppb)		
	Silver				
	Zinc				

Results in mg/l unless otherwise noted.

[illegible]

Transported by: MJS

Received by:

Transported by:

Received by:

FOR LAB USE ONLY

Lab Number: 600190　Rec'd by: R Knowles

Date sample rec'd: 4-11-77　Time: 1:00 pm

Date analysis completed: 4-21-77

Date results forwarded: 4-22-77

Total Tests requested: 8　Tests run: 8

Lab Section: [illegible]　[illegible]

TRIEM STEEL
Photographs April 11, 1977

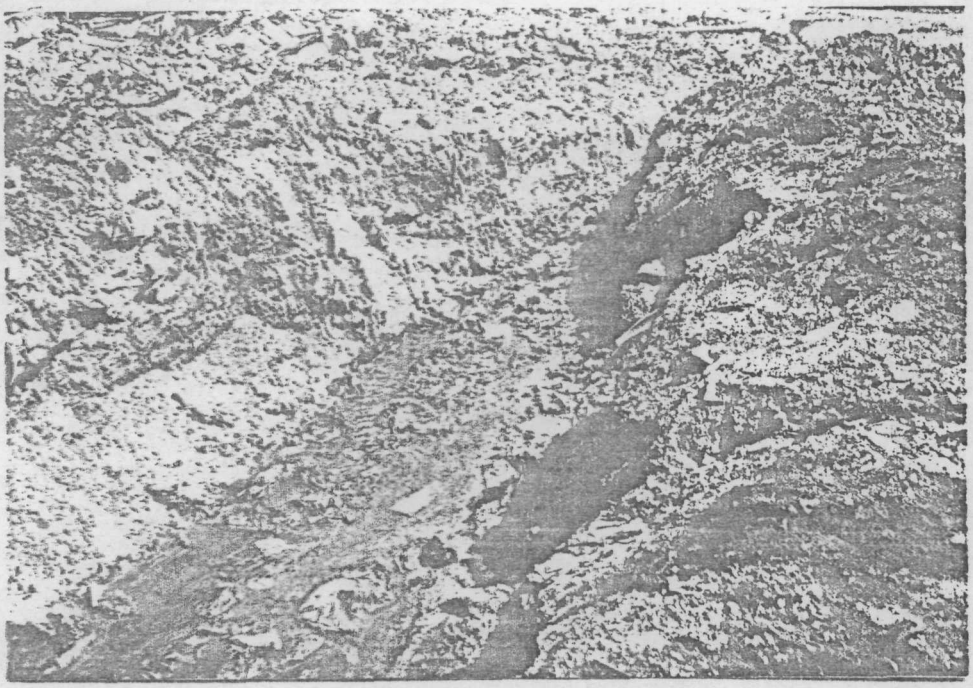

PHOTO #1 - View of outlet discharging to ditch from the east.

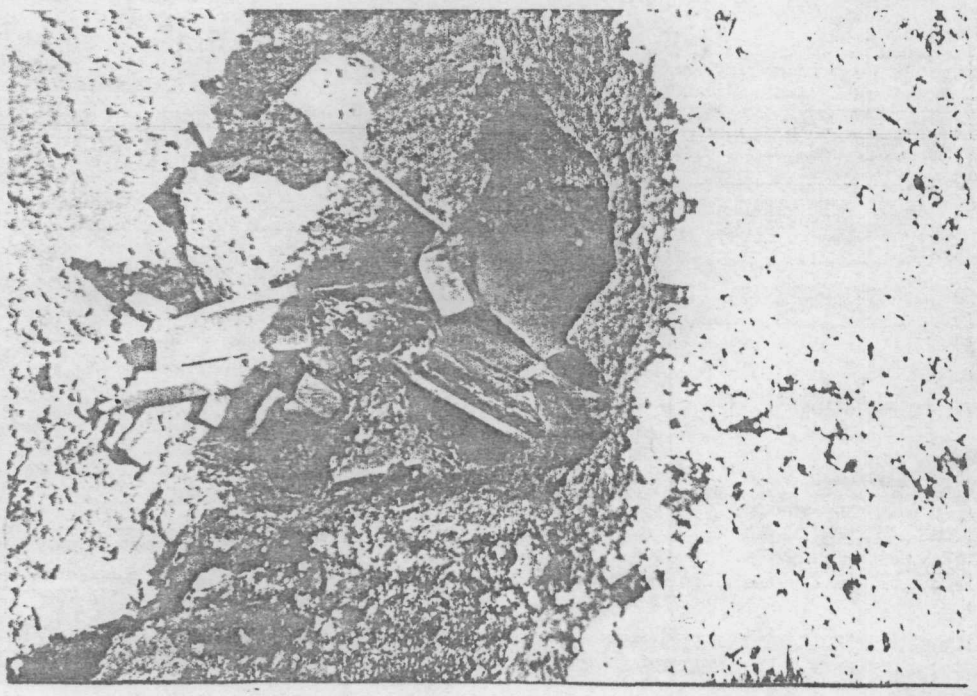

PHOTO #2 - Discharge to the ditch from south. Note oil.